

# SEQUENCE LISTING

<110> Rosier, Marie  
Prades, Catherine  
Lemoine, Cendrine  
Naudin, Laurent  
Denefle, Patrice  
Duverger, Nicolas  
Brewer, Bryan  
Remaley, Alan  
Fojo, Silvia

<120> Regulatory Nucleic Acid for the ABC1 Gene, Molecules Modifying Its Activity and Therapeutic Uses

<130> 3806.0505

<150> US 60/201,280

<151> 2000-05-02

<160> 20

<170> PatentIn version 3.0

<210> 1

<211> 3231

<212> DNA

<213> Homo sapiens

<400> 1

```
acagggcatg gtggcaggtg cctgtaatct cagttactcg ggaggtggag gttgcaatga      60
gccagatcg caccattgca ctccagcctg ggcaacaaaa ggtgaaactc catctcaatt      120
aaaaaaaaa gaatgatttt ggtggctcgac ttcaaatagg taggagaaga aggagagagg      180
agatggaggg tcagggagat ctaattactc tctaaaatca tgctaggaaa gataacacct      240
tttaataaca ctctctgctt ttataacatc attctgccaa ggagctcaaa ggtttcaaca      300
aagttcactt tcagaaaacc cctttgagga agacagaata tacatcttct ctccatttta      360
aagatgaaga aacaggccgg gcacaatggc taatgcctgt aatcccagca ctttgggagg      420
ctgaggccag aggatcgctt gagctccaga gtttgagacc agcctggata acatggcaaa      480
accctgtctc tacaaaaaaaa atacaaaaat tagatgggtg tgggtggcatg cacctgtggt      540
cccagctact tgggaggcta aggtgggagg atcgcttgag cccagggagt caagtctaca      600
ctgagccatg attggatcac tgcactccag cctgggtaga cagagcaaga ccctgtctca      660
aaaaaaagaa atgaaagaga aagaaagaaa gaggagagga gaggagatga ggggaggagg      720
gaggggggga ggaaggaagg aaggaaggaa ggaaaaaaag atgaaaaaag aaaaaaacia      780
gatgaaacag aggcagaaaag actttacgta aattgctcat catgtggttg tcaagtttga      840
cccaaaaacc caatttattg accaaggtta ttctttgact gaggcaaggg ggtccgctct      900
cctgggcctt gggctttaga aagctcatct ctggcctttc tgagatccat ccctttcttt      960
ttatttttct tgacacggag tcttgctctg tctctcagga tggagtgcag tggcatgata     1020
```



```

cggcaaaaac cccgtaattg cgagcgagag tgagtggggc cgggacccgc agagccgagc 2940
cgacccttct ctcccgggct gcggcagggc agggcgggga gctccgcgca ccaacagagc 3000
cggttctcag ggcgctttgc tccttgtttt ttccccgggt ctgttttctc cccttctccg 3060
gaaggcttgt caaggggtag gagaaagaga cgcaaacaca aaagtggaaa acaggtaaga 3120
ggctctccag tgacttactt gggcgttatt gttttgtttc gaggccaagg aggcttcggg 3180
aagtgctcgg ttctggggac ttgatccgg agccccacat ccccaccact t 3231

```

<210> 2  
 <211> 357  
 <212> DNA  
 <213> Homo sapiens

```

<400> 2
tgagggtctc agctgagagg gctggattag cagtcctcat tgggtgatgg ctttgcagca 60
ataactgatg gctgtttccc ctctgcttt atctttcagt taatgaccag ccacgggcgt 120
ccctgctgtc agctctggcc gctgccttcc agggctcccg agccacacgc tgggcgtgct 180
ggctgagggg acatggcatg ttggcctcag ctgaggttgc tgctgtggaa gaacctcact 240
ttcagaagaa gacaaacagt aagcttgggt ttttcagcag cgggggggtt tctcattttt 300
tctttgtggg tttagagttg ggattggagg agggagggag ggaaggaagc tgtgttg 357

```

<210> 3  
 <211> 2893  
 <212> DNA  
 <213> Homo sapiens

```

<400> 3
acagggcatg gtggcaggtg cctgtaatct cagttactcg ggaggtggag gttgcaatga 60
gccagatcg caccattgca ctccagcctg ggcaacaaaa ggtgaaactc catctcaatt 120
aaaaaaaaa gaatgatttt ggtggtcgac ttcaaatagg taggagaaga aggagagagg 180
agatggaggg tcagggagat ctaattactc tctaaaatca tgctaggaaa gataaacctt 240
tttaataaca ctctctgctt ttataacatc attctgccaa ggagctcaaa ggtttcaaca 300
aagttcactt tcagaaaacc cctttgagga agacagaata tacatcttct ctccatttta 360
aagatgaaga aacaggcccg gcacaatggc taatgcctgt aatcccagca ctttgggagg 420
ctgaggccag aggatcgctt gagctccaga gtttgagacc agcctggata acatggcaaa 480
accctgtctc tacaaaaaaa atacaaaaat tagatgggtg tgggtggcatg cacctgtggt 540
cccagctact tgggaggcta aggtgggagg atcgcttgag ccaggaggat caagtctaca 600
ctgagccatg attggatcac tgcactccag cctgggtaga cagagcaaga ccctgtctca 660
aaaaaaagaa atgaaagaga aagaaagaaa gaggagagga gaggagatga ggggaggagg 720
gagggggggg ggaaggaagg aaggaaggaa ggaaaaaaag atgaaaaaag aaaaaaacia 780

```

gatgaaacag	aggcagaaag	actttacgta	aattgctcat	catgtggttg	tcaagtttga	840
ccccaaaacc	caattttattg	accaagggtta	ttctttgact	gaggcaaggg	ggtccgctct	900
cctgggcctt	gggcttttaga	aagctcatct	ctggcctttc	tgagatccat	ccctttcttt	960
ttattttttct	tgacacggag	tcttgctctg	tcactcaggc	tggagtgcag	tggcatgata	1020
tcgactcact	gtaacctctg	cctcccgggt	tcaagcgatt	ctcctgcctc	agcctcctga	1080
gataacaggc	gcccgccacc	acatctggct	aatttttgta	tttttagtaa	agactggggt	1140
tcatacatgtt	ggccagggttg	gtttcgaact	cctgacctga	ggtgagctgc	ccaccttggc	1200
ctcccaaagt	gctgggatta	caggcatgag	ccactgcgcc	cagctcagat	ccatcccttt	1260
ctaagggcaa	acagtccatg	gtgcaaaggg	gccatgccac	ccagagttaa	gagtacctgg	1320
gactccagaa	ttccttgcct	ggtggcctcc	acatgcactt	ccagggcctg	cttgggcctc	1380
ttctatgcgt	ctgtcctgag	tgttgataga	accactgatg	tgagtacctg	ggcttgagcc	1440
gtggcctgga	gatcctgttg	actgtagcat	ggagggggct	tgtgcagctg	aatgtctgca	1500
tgcaggtggt	gggagttctg	gaatatgatg	gagctggagg	tgggaagaga	agtaggcttg	1560
gggcagctct	ctcatgccac	ctcattctgg	ccaaaactca	ggtcaaactg	tgaagagtct	1620
aaatgtgaat	ctgcccttca	aggtggctac	aaaggtatct	ttgtcaaggt	aggagacctt	1680
gtggcctcca	cgtgcacttc	cagggcctgc	ttgggcctct	tctacgggtc	tgtcctgagt	1740
cttctatgaa	tccttcaggg	cagattcata	tttagactct	tcacagtttg	acctgagttt	1800
tggccagaaat	aaggtgacat	ttagtttggt	ggcttgatgg	atgacttaaa	tatttagaca	1860
tgggtgtgtag	gcctgcattc	ctactcttgc	cttttttttt	gcccctccag	tgttttgggt	1920
agttttgctc	ccctacagcc	aaaggcaaac	agagaagttg	gaggtctgga	gtggctacat	1980
aattttacac	gactgcaatt	ctctggctgc	acttcacaaa	tgtatacaaa	ctaaatacaa	2040
gtcctgtgtt	tttatcacag	ggaggctgat	caatataatg	aaattaaaag	ggggctggtc	2100
catattgttc	tgtgtttttg	ttgtttgtt	ttgtttgtt	ctttttttgt	ttttgtggcc	2160
tccttctctc	caatttatga	agagaagcag	taagatgttc	ctctcgggtc	ctctgagggg	2220
cctggggagc	tcaggctggg	aatctccaag	gcagtaggtc	gcctatcaaa	aatcaaagtc	2280
caggtttggtg	gggggaaaac	aaaagcagcc	cattaccagc	aggactgtcc	gccttccctc	2340
caccccagcc	taggcctttg	aaaggaaaca	aaagacaaga	caaaatgatt	ggcgtcctga	2400
gggagattca	gcctagagct	ctctctcccc	caatccctcc	ctccggctga	ggaaactaac	2460
aaaggaaaaa	aaaattgcgg	aaagcaggat	ttagaggaag	caaattccac	tgggtgccctt	2520
ggctgccggg	aacgtggact	agagagtctg	cggcgcagcc	ccgagcccag	cgcttcccgc	2580
gcgtcttagg	cgggcggggc	cgggcggggg	aaggggacgc	agaccgcgga	ccctaagaca	2640

cctgctgtac cctccacccc caccacccc caccacccc cccccaactc cctagatgtg 2700  
 tcgtggggcg ctgaacgtcg cccgtttaag gggcgggccc cggtccacg tgctttctgc 2760  
 tgagtactg aactacataa acagaggccg ggaagggggc ggggaggagg gagagcacag 2820  
 gctttgaccg atagtaacct ctgcgtcgg tgcagccgaa tctataaaag gaactagtcc 2880  
 cggaacaaac ccc 2893

<210> 4  
 <211> 221  
 <212> DNA  
 <213> Homo sapiens

<400> 4  
 gtaattgcga gcgagagtga gtggggccgg gacccgcaga gccgagccga cccttctctc 60  
 ccgggctgcg gcagggcagg gcggggagct ccgcgcacca acagagccgg ttctcagggc 120  
 gctttgctcc ttgttttttc cccggttctg tttctctccc ttctccggaa ggcttgtcaa 180  
 ggggtaggag aaagagacgc aaacacaaaa gtggaaaaca g 221

<210> 5  
 <211> 159  
 <212> DNA  
 <213> Homo sapiens

<400> 5  
 ttaatgacca gccacgggcg tccctgctgt cagctctggc cgctgccttc cagggctccc 60  
 gagccacacg ctgggctgctc tggctgaggg aacatggcat gttggcctca gctgaggttg 120  
 ctgctgtgga agaacctcac tttcagaaga agacaaaca 159

<210> 6  
 <211> 117  
 <212> DNA  
 <213> Homo sapiens

<400> 6  
 gtaagaggct ctccagtgc ttacttgggc gttattgttt tgtttcgagg ccaaggaggc 60  
 ttcgggaagt gctcggtttc ggggaacttg atccggagcc ccacatcccc accactt 117

<210> 7  
 <211> 99  
 <212> DNA  
 <213> Homo sapiens

<400> 7  
 tggaggctc agctgagagg gctggattag cagtcctcat tgggtgtatgg ctttgcagca 60  
 ataactgatg gctgtttccc ctctgcttt atctttcag 99

<210> 8  
 <211> 99

```

<212> DNA
<213> Homo sapiens

<400> 8
gtaagcttgg gtttttcagc agcggggggt tctctcattt tttctttgtg gttttgagtt 60
ggggattgga ggagggaggg agggaaggaa gctgtgttg 99

<210> 9
<211> 22
<212> PRT
<213> Homo sapiens

<400> 9
Met Ala Cys Trp Pro Gln Leu Arg Leu Leu Leu Trp Lys Asn Leu Thr
1 5 10 15
Phe Arg Arg Arg Gln Thr
20

<210> 10
<211> 9741
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> "n" is chosen from g, a, t and c

<400> 10
cttgtttttt ccccggttct gttttctccc cttctccgga aggcttgtca aggggtagga 60
gaaagagacg caaacacaaa agtggaaaac agttaatgac cagccacggc gtccttgctg 120
tgagctctgg ccgctgcctt ccagggtcc cgagccacac gctgggggtg ctggctgagg 180
gaacatggct tgttggcctc agctgaggtt gctgctgttg aagaacctca ctttcagaag 240
aagacaaaaca tgtcagctgc tgctggaagt ggctggcct ctatttatct tctgatacct 300
gatctctgtt cggctgagct acccacccta tgaacaacat gaatgccatt ttccaaataa 360
agccatgcc tctgcaggaa cacttccttg ggttcagggg attatctgta atgccaacaa 420
ccctgtttc cgttaccoga ctctgggga ggctcccgga gttgttgga actttaacaa 480
atccatttg gctcgctgt tctcagatgc tcggaggctt cttttataca gccagaaaga 540
caccagcatg aaggacatgc gcaaagttct gagaacatta cagcagatca agaaatccag 600
ctcaaacttg aagcttcaag atttcctggt ggacaatgaa accttctctg ggttcctgta 660
tcacaacctc tctctccaa agtctactgt ggacaagatg ctgagggtg atgtcattct 720
ccacaaggta tttttgcaag gctaccagtt acatttgaca agtctgtgca atggatcaaa 780
atcagaagag atgattcaac ttggtgacca agaagtttct gagctttgtg gcctaccaag 840
ggagaaactg gctgcagcag agcgagtact tcgttccaac atggacatcc tgaagccaat 900

```

cctgagaaca ctaaactcta catctccctt cccgagcaag gagctggccg aagccacaaa	960
aacattgctg catagtcttg ggactctggc ccaggagctg ttcagcatga gaagctggag	1020
tgacatgcga caggaggtga tgtttctgac caatgtgaac agctccagct cctccacca	1080
aatctaccag gctgtgtctc gtattgtctg cgggcatccc gagggagggg ggctgaagat	1140
caagtctctc aactggatat aggacaacaa ctacaaagcc ctctttggag gcaatggcac	1200
tgaggaagat gctgaaacct tctatgacaa ctctacaact ccttactgca atgatttgat	1260
gaagaatttg gagtctagtc ctctttcccg cattatctgg aaagctctga agccgctgct	1320
cgttgggaag atcctgtata cacctgacac tccagccaca aggcagggtca tggctgaggt	1380
gaacaagacc ttccaggaac tggctgtgtt ccatgatctg gaaggcatgt gggaggaact	1440
cagccccaag atctggacct tcatggagaa cagccaagaa atggaccttg tccggatgct	1500
gttggacagc agggacaatg accacttttg ggaacagcag ttggatggct tagattggac	1560
agcccaagac atcgtggcgt ttttggccaa gcaccagag gatgtccagt ccagtaatgg	1620
ttctgtgtac acctggagag aagctttcaa cgagactaac caggcaatcc ggaccatatt	1680
tcgcttcatg gagtgtgtca acctgaacaa gctagaacct atagcaacag aagtctggct	1740
catcaacaag tccatggagc tgctggatga gaggaagttc tgggctggta ttgtgttcac	1800
tggaattact ccaggcagca ttgagctgcc ccatcatgtc aagtacaaga tccgaatgga	1860
cattgacaat gtggagagga caaataaaat caaggatggg tactgggacc ctggtcctcg	1920
agctgacccc tttgaggaca tgcggtacgt ctgggggggc ttgcctact tgcaggatgt	1980
ggtggagcag gcaatcatca ggggtgctgac gggcaccgag aagaaaactg gtgtctatat	2040
gcaacagatg ccctatccct gttacgttga tgacatcttt ctgcgggtga tgagccggtc	2100
aatgcccctc ttcatgacgc tggcctggat ttactcagtg gctgtgatca tcaagggcat	2160
cgtgtatgag aaggaggcac ggctgaaaga gaccatgcgg atcatgggcc tggacaacag	2220
catcctctgg tttagctggt tcattagtag cctcattcct cttcttgtga gcgctggcct	2280
gctagtggtc atcctgaagt taggaaacct gctgccctac agtgatccca gcgtgggtgtt	2340
tgtcttctcg tccgtgtttg ctgtggtgac aatcctgcag tgcttctga ttagcacact	2400
cttctccaga gccaacctgg cagcagcctg tggggggcatc atctacttca cgctgtacct	2460
gccctacgtc ctgtgtgtgg catggcagga ctacgtgggc ttcacactca agatcttcgc	2520
tagcctgctg tctcctgtgg cttttgggtt tggctgtgag tactttgccc tttttgagga	2580
gcagggcatt ggagtgcagt gggacaacct gtttgagagt cctgtggagg aagatggctt	2640
caatctcacc acttcggtct ccatgatgct gtttgacacc ttctctatg gggatgatgac	2700
ctggtacatt gaggtgtct ttccaggcca gtacggaatt cccaggccct ggtattttcc	2760
ttgcaccaag tcctactggt ttggcgagga aagtgatgag aagagccacc ctggttccaa	2820

ccagaagaga atatcagaaa tctgcatgga ggaggaaccc acccacttga agctgggcgt	2880
gtccattcag aacctggtaa aagtctaccg agatgggatg aaggtggctg tcgatggcct	2940
ggcactgaat ttttatgagg gccagatcac ctcccttctg ggccacaatg gagcggggaa	3000
gacgaccacc atgtcaatcc tgaccgggtt gttccccccg acctcgggca ccgcctacat	3060
cctgggaaaa gacattcgct ctgagatgag caccatccgg cagaacctgg gggctctgtcc	3120
ccagcataac gtgctgtttg acatgctgac tgtcgaagaa cacatctggt tctatgcccg	3180
cttgaaaggg ctctctgaga agcacgtgaa ggcggagatg gagcagatgg ccctggatgt	3240
tggtttgcca tcaagcaagc tgaaaagcaa aacaagccag ctgtcaggtg gaatgcagag	3300
aaagctatct gtggccttgg cctttgtcgg gggatctaag gttgtcattc tggatgaacc	3360
cacagctggt gtggaccctt actcccgcag gggaatatgg gagctgctgc tgaaataccg	3420
acaaggccgc accattattc tctctacaca ccacatggat gaagcggacg tcttggggga	3480
caggattgcc atcatctccc atgggaagct gtgctgtgtg ggctcctccc tgtttctgaa	3540
gaaccagctg ggaacaggct actacctgac cttgggtcaag aaagatgtgg aatcctccct	3600
cagttcctgc agaaacagta gtagcactgt gtcatacctg aaaaaggagg acagtgtttc	3660
tcagagcagt tctgatgctg gcctgggcag cgaccatgag agtgacacgc tgaccatcga	3720
tgtctctgct atctccaacc tcatcaggaa gcatgtgtct gaagcccggc tgggtggaaga	3780
catagggcat gagctgacct atgtgctgcc atatgaagct gctaaggagg gagcctttgt	3840
ggaactcttt catgagattg atgaccggct ctccagacctg ggcatttcta gttatggcat	3900
ctcagagacg accctggaag aaatattcct caaggtggcc gaagagagtg ggggtggatgc	3960
tgagacctca gatggtacct tgccagcaag acgaaacagg cgggccttcg gggacaagca	4020
gagctgtctt cgcccgttca ctgaagatga tgctgctgat ccaaattgatt ctgacataga	4080
cccagaatcc agagagacag acttgctcag tgggatggat ggcaaagggc cctaccaggt	4140
gaaaggctgg aaacttacac agcaacagtt tgtggccctt ttgtggaaga gactgctaata	4200
tgccagacgg agtcggaaag gattttttgc tcagattgtc ttgccagctg tgtttgtctg	4260
cattgccctt gtgttcagcc tgatcgtgcc acccttttggc aagtacccca gcctggaact	4320
tcagccctgg atgtacaacg aacagtacac atttgtcagc aatgatgctc ctgaggacac	4380
gggaaccctg gaactcttaa acgcccctcac caaagaccct ggcttcggga cccgctgtat	4440
ggaaggaaac ccaatcccag acacgccctg ccaggcaggg gaggaagagt ggaccactgc	4500
cccagttccc cagaccatca tggacctctt ccagaatggg aactggacaa tgcagaaccc	4560
ttcacctgca tgccagtgtg gcagcgacaa aatcaagaag atgctgctg tgtgtcccc	4620
aggggcaggg gggctgcctc ctccacaaag aaaacaaaac actgcagata tccttcagga	4680



cctgacagga agaaacatth cggattatct ggtgaagacg tatgtgcaga tcatagccaa 4740  
aagcttaaag aacaagatct gggatgaatga gtttaggtat ggcggctttt ccctgggtgt 4800  
cagtaatact caagcacttc ctccgagtca agaagttaat gatgccacca aacaaatgaa 4860  
gaaacaccta aagctggcca aggacagttc tgcagatcga tttctcaaca gcttggaag 4920  
atthtatgaca ggactggaca ccagaaataa tgtcaagggtg tggttcaata acaagggtg 4980  
gcatgcaatc agctctttcc tgaatgtcat caacaatgcc attctccggg ccaacctgca 5040  
aaaggagag aaccctagcc attatggaat tactgctttc aatcatcccc tgaatctcac 5100  
caagcagcag ctctcagagg tggctccgat gaccacatca gtggatgtcc ttgtgtccat 5160  
ctgtgtcatc tttgcaatgt cttctgtccc agccagcttt gtcgtattcc tgatccagga 5220  
gcgggtcagc aaagcaaac acctgcagtt catcagtga gtgaagcctg tcatctactg 5280  
gctctctaath tttgtctggg atatgtgcaa ttacgttgtc cctgccacac tggtcattat 5340  
catcttcate tgcttcagc agaagtccta tgtgtcctcc accaatctgc ctgtgctagc 5400  
ccttctactt ttgtgtatg ggtggatcaat cacacctctc atgtaccag cctcctttgt 5460  
gttcaagatc ccagcacag cctatgtggg gctcaccagc gtgaacctct tcattggcat 5520  
taatggcagc gtggccacct ttgtgctgga gctgttcacc gacaataagc tgaataatat 5580  
caatgatatc ctgaagtcg tgthcttgat cthcccat tthtgcctgg gacgagggt 5640  
catcgacatg gtgaaaaacc aggcaatggc tgatgccctg gaaaggtht gggagatcg 5700  
ctthgtgtca ccattatctt gggacttggt gggacgaaac ctcttcgcca tggcctgga 5760  
aggggtgggtg thcttctca ttactgttct gatccagtac agattcttca tcaggccag 5820  
acctgtaaat gcaaagctat ctctctgaa tgatgaagat gaagatgtga ggcgggaaag 5880  
acagagaatt ctgatgggtg gaggccagaa tgacatctta gaaatcaagg agttgacgaa 5940  
gatatataga aggaagcgga agcctgctgt tgacaggatt tgcgtgggca thctctctgg 6000  
tgagtgtttt gggctcctgg gagttaatgg ggctggaaaa tcatcaactt tcaagatgtt 6060  
aacaggagat accactgtta ccagaggaga tgctthctt aacagaaata gtatcttctc 6120  
aaacatccat gaagtacatc agaacatggg ctactgcct cagthtgatg ccatcacaga 6180  
gctgttgact gggagagaac acgtggagtt cthtgcctt ttgagaggag tcccagagaa 6240  
agaagttggc aaggthtggt agtggcgat tgggaaactg ggcctcgtga agtatggaga 6300  
aaaatatgct ggtaactata gtggaggcaa caaacgcaag ctctctacag catggcttt 6360  
gatcgcggg cctctgtgg tgtthctgga tgaaccacc acaggcatgg atcccaaagc 6420  
ccggcggttc ttgtggaatt gtgccctaag tgtgtcaag gaggggagat cagtagtgt 6480  
tacatctcat agtatggaag aatgtgaagc thtttgcact aggatggcaa tcatggtaa 6540  
tggaaggthc aggtgccttg gcagtgtcca gcatctaaaa aataggtht gagatggta 6600

tacaatagtt gtacgaatag caggggtccaa cccggacctg aagcctgtcc aggatttctt	6660
tggacttgca tttcctggaa gtgttccaaa agagaaacac cggaacatgc tacaatacca	6720
gcttccatct tcattatctt ctctggccag gatattcagc atcctctccc agagcaaaaa	6780
gcgactccac atagaagact actctgtttc tcagacaaca cttgaccaag tatttgtgaa	6840
ctttgccaaag gaccaaagtg atgatgacca cttaaaagac ctctcattac acaaaaacca	6900
gacagtagtg gacgttgacg ttctcacatc ttttctacag gatgagaaag tgaaagaaag	6960
ctatgtatga agaatcctgt tcatacgggg tggctgaaag taaagaggna ctagactttc	7020
ctttgcacca tgtgaagtgt tgtggagaaa agagccagaa gttgatgtgg gaagaagtaa	7080
actggatact gtactgatac tattcaatgc aatgcaattc aatgcaatga aaacaaaatt	7140
ccattacagg ggcagtgcct ttgtagccta tgtcttgat ggctctcaag tgaaagactt	7200
gaatttagtt ttttacctat acctatgtga aactctatta tggaacccaa tggacatatg	7260
ggtttgaact cacacttttt tttttttttt gttcctgtgt attctcattg gggttgcaac	7320
aataattcat caagtaatca tggccagcga ttattgatca aaatcaaaag gtaatgcaca	7380
tcctcattca ctaagccatg ccatgccag gagactgggt tcccggtgac acatccattg	7440
ctggcaatga gtgtgccaga gttattagtg ccaagttttt cagaaagttt gaagcaccat	7500
ggtgtgtcat gctcactttt gtgaaagctg ctctgctcag agtctatcaa cattgaatat	7560
cagttgacag aatgggtgcca tgcgtggcta acatcctgct ttgattccct ctgataagct	7620
gttctgggtgg cagtaacatg caacaaaaat gtgggtgtct ctaggcacgg gaaacttgg	7680
tccattgtta tattgtcta tgcttcgagc catgggtcta cagggtcac cttatgagac	7740
tcttaaatat acttagatcc tggtaagagg caaagaatca acagccaaac tgctggggct	7800
gcaagctgct gaagccaggg catgggatta aagagattgt gcgttcaaac ctagggaagc	7860
ctgtgcccac ttgtcctgac tgtctgctaa catggtacac tgcactcaa gatgtttatc	7920
tgacacaagt gtattatttc tggctttttg aattaatcta gaaaatgaaa agatggagtt	7980
gtattttgac aaaaatgttt gtacttttta atgttatttg gaattttaag ttctatcagt	8040
gacttctgaa tccttagaat ggcctctttg tagaaccctg tggtatagag gagtatggcc	8100
actgccccac tattttttatt ttcttatgta agtttgcata tcagtcatga ctagtgccta	8160
gaaagcaatg tgatggtcag gatctcatga cattatattt gagtttcttt cagatcattt	8220
aggatactct taatctcact tcatcaatca aatatttttt gagtgatgc tgtagctgaa	8280
agagtatgta cgtacgtata agactagaga gatattaagt ctacgtacac ttctgtgcc	8340
atgttattca gctcactggg ttacaaaatat aggttgtctt gtggttgtag gagccactg	8400
taacaatact gggcagcctt tttttttttt ttttaattgca acaatgcaaa agccaagaaa	8460

gtataagggt cacaagtcta aacaatgaat tcttcaacag ggaaaacagc tagcttgaaa 8520  
 acttgctgaa aaacacaact tgtgtttatg gcatttagta ccttcaaata attggctttg 8580  
 cagatattgg ataccccatc aaatctgaca gtctcaaatt tttcatctct tcaatcacta 8640  
 gtcaagaaaa atataaaaaac aacaaatact tccatatgga gcatttttca gagttttcta 8700  
 acccagtctt atttttctag tcagtaaaca tttgtaaaaa tactgtttca ctaataactta 8760  
 ctgttaactg tcttgagaga aaagaaaaat atgagagaac tattgtttgg ggaagttcaa 8820  
 gtgatctttc aatatcatta ctaacttctt ccactttttc caaaatttga atattaacgc 8880  
 taaagggtgta agacttcaga tttcaaatta atctttctat attttttaaa tttacagaat 8940  
 attatataac ccactgctga aaaagaaaaa aatgattgtt ttagaagtta aagtcaatat 9000  
 tgatttttaa tataagtaat gaaggcatat ttccaataac tagtgatatg gcacgtttgc 9060  
 attttacagt atcttcaaaa atacagaatt tatagaataa tttctcctca tttaatattt 9120  
 ttcaaaatca aagttatggg ttctctcatt tactaaaatc gtattctaatt tcttcattat 9180  
 agtaaattcta tgagcaactc cttacttcgg ttctctctgat ttcaaggcca tatttttaaaa 9240  
 aatcaaaaagg cactgtgaac tattttgaag aaaacacaac attttaatac agattgaaa 9300  
 gacctcttct gaagctagaa acaatctata gttatacatc ttcatataata ctgtgttacc 9360  
 ttttaaaaata gtaatttttt acattttcct gtgtaaacct aattgtggta gaaattttta 9420  
 ccaactctat actcaatcaa gcaaaatttc tgtatattcc ctgtggaatg tacctatgtg 9480  
 agtttcagaa attctcaaaa tacgtgttca aaaattttctg cttttgcac tttgggacac 9540  
 ctcagaaaaac ttattaacaa ctgtgaatat gagaaatata gaagaaaata ataagccctc 9600  
 tatacataaa tgcccagcac aattcattgt taaaaaacia ccaaacctca cactactgta 9660  
 tttcattatc tgtactgaaa gcaaatgctt tgtgactatt aaatgttgca catcattcat 9720  
 tcaaaaaaaaa aaaaaaaaaa a 9741

<210> 11  
 <211> 2261  
 <212> PRT  
 <213> Homo sapiens

<400> 11

Met Ala Cys Trp Pro Gln Leu Arg Leu Leu Leu Trp Lys Asn Leu Thr  
 1 5 10 15  
 Phe Arg Arg Arg Gln Thr Cys Gln Leu Leu Leu Glu Val Ala Trp Pro  
 20 25 30  
 Leu Phe Ile Phe Leu Ile Leu Ile Ser Val Arg Leu Ser Tyr Pro Pro  
 35 40 45  
 Tyr Glu Gln His Glu Cys His Phe Pro Asn Lys Ala Met Pro Ser Ala  
 50 55 60

Gly 65	Thr	Leu	Pro	Trp	Val 70	Gln	Gly	Ile	Ile	Cys 75	Asn	Ala	Asn	Asn	Pro 80
Cys	Phe	Arg	Tyr	Pro 85	Thr	Pro	Gly	Glu	Ala 90	Pro	Gly	Val	Val	Gly 95	Asn
Phe	Asn	Lys	Ser 100	Ile	Val	Ala	Arg	Leu 105	Phe	Ser	Asp	Ala	Arg 110	Arg	Leu
Leu	Leu	Tyr 115	Ser	Gln	Lys	Asp	Thr 120	Ser	Met	Lys	Asp	Met 125	Arg	Lys	Val
Leu	Arg 130	Thr	Leu	Gln	Gln 135	Ile	Lys	Lys	Ser	Ser	Ser 140	Asn	Leu	Lys	Leu
Gln 145	Asp	Phe	Leu	Val	Asp 150	Asn	Glu	Thr	Phe	Ser 155	Gly	Phe	Leu	Tyr	His 160
Asn	Leu	Ser	Leu 165	Pro	Lys	Ser	Thr	Val 170	Asp	Lys	Met	Leu	Arg	Ala 175	Asp
Val	Ile	Leu	His 180	Lys	Val	Phe	Leu	Gln 185	Gly	Tyr	Gln	Leu	His 190	Leu	Thr
Ser	Leu	Cys 195	Asn	Gly	Ser	Lys	Ser 200	Glu	Glu	Met	Ile	Gln 205	Leu	Gly	Asp
Gln	Glu 210	Val	Ser	Glu	Leu	Cys 215	Gly	Leu	Pro	Arg	Glu 220	Lys	Leu	Ala	Ala
Ala 225	Glu	Arg	Val	Leu	Arg 230	Ser	Asn	Met	Asp	Ile 235	Leu	Lys	Pro	Ile	Leu 240
Arg	Thr	Leu	Asn	Ser 245	Thr	Ser	Pro	Phe	Pro 250	Ser	Lys	Glu	Leu	Ala 255	Glu
Ala	Thr	Lys	Thr 260	Leu	Leu	His	Ser	Leu 265	Gly	Thr	Leu	Ala	Gln 270	Glu	Leu
Phe	Ser	Met 275	Arg	Ser	Trp	Ser	Asp 280	Met	Arg	Gln	Glu	Val 285	Met	Phe	Leu
Thr	Asn 290	Val	Asn	Ser	Ser	Ser 295	Ser	Ser	Thr	Gln	Ile 300	Tyr	Gln	Ala	Val
Ser 305	Arg	Ile	Val	Cys	Gly 310	His	Pro	Glu	Gly	Gly 315	Gly	Leu	Lys	Ile	Lys 320
Ser	Leu	Asn	Trp	Tyr 325	Glu	Asp	Asn	Asn	Tyr 330	Lys	Ala	Leu	Phe	Gly 335	Gly
Asn	Gly	Thr	Glu 340	Glu	Asp	Ala	Glu	Thr 345	Phe	Tyr	Asp	Asn	Ser 350	Thr	Thr
Pro	Tyr	Cys 355	Asn	Asp	Leu	Met	Lys 360	Asn	Leu	Glu	Ser	Ser 365	Pro	Leu	Ser
Arg	Ile 370	Ile	Trp	Lys	Ala	Leu	Lys 375	Pro	Leu	Leu	Val 380	Gly	Lys	Ile	Leu
Tyr 385	Thr	Pro	Asp	Thr	Pro 390	Ala	Thr	Arg	Gln	Val 395	Met	Ala	Glu	Val	Asn 400

Lys Thr Phe Gln Glu Leu Ala Val Phe His Asp Leu Glu Gly Met Trp  
 405 410 415  
 Glu Glu Leu Ser Pro Lys Ile Trp Thr Phe Met Glu Asn Ser Gln Glu  
 420 425 430  
 Met Asp Leu Val Arg Met Leu Leu Asp Ser Arg Asp Asn Asp His Phe  
 435 440 445  
 Trp Glu Gln Gln Leu Asp Gly Leu Asp Trp Thr Ala Gln Asp Ile Val  
 450 455 460  
 Ala Phe Leu Ala Lys His Pro Glu Asp Val Gln Ser Ser Asn Gly Ser  
 465 470 475 480  
 Val Tyr Thr Trp Arg Glu Ala Phe Asn Glu Thr Asn Gln Ala Ile Arg  
 485 490 495  
 Thr Ile Ser Arg Phe Met Glu Cys Val Asn Leu Asn Lys Leu Glu Pro  
 500 505 510  
 Ile Ala Thr Glu Val Trp Leu Ile Asn Lys Ser Met Glu Leu Leu Asp  
 515 520 525  
 Glu Arg Lys Phe Trp Ala Gly Ile Val Phe Thr Gly Ile Thr Pro Gly  
 530 535 540  
 Ser Ile Glu Leu Pro His His Val Lys Tyr Lys Ile Arg Met Asp Ile  
 545 550 555 560  
 Asp Asn Val Glu Arg Thr Asn Lys Ile Lys Asp Gly Tyr Trp Asp Pro  
 565 570 575  
 Gly Pro Arg Ala Asp Pro Phe Glu Asp Met Arg Tyr Val Trp Gly Gly  
 580 585 590  
 Phe Ala Tyr Leu Gln Asp Val Val Glu Gln Ala Ile Ile Arg Val Leu  
 595 600 605  
 Thr Gly Thr Glu Lys Lys Thr Gly Val Tyr Met Gln Gln Met Pro Tyr  
 610 615 620  
 Pro Cys Tyr Val Asp Asp Ile Phe Leu Arg Val Met Ser Arg Ser Met  
 625 630 635 640  
 Pro Leu Phe Met Thr Leu Ala Trp Ile Tyr Ser Val Ala Val Ile Ile  
 645 650 655  
 Lys Gly Ile Val Tyr Glu Lys Glu Ala Arg Leu Lys Glu Thr Met Arg  
 660 665 670  
 Ile Met Gly Leu Asp Asn Ser Ile Leu Trp Phe Ser Trp Phe Ile Ser  
 675 680 685  
 Ser Leu Ile Pro Leu Leu Val Ser Ala Gly Leu Leu Val Val Ile Leu  
 690 695 700  
 Lys Leu Gly Asn Leu Leu Pro Tyr Ser Asp Pro Ser Val Val Phe Val  
 705 710 715 720  
 Phe Leu Ser Val Phe Ala Val Val Thr Ile Leu Gln Cys Phe Leu Ile  
 725 730 735

Ser Thr Leu Phe Ser Arg Ala Asn Leu Ala Ala Ala Cys Gly Gly Ile  
740 745 750

Ile Tyr Phe Thr Leu Tyr Leu Pro Tyr Val Leu Cys Val Ala Trp Gln  
755 760 765

Asp Tyr Val Gly Phe Thr Leu Lys Ile Phe Ala Ser Leu Leu Ser Pro  
770 775 780

Val Ala Phe Gly Phe Gly Cys Glu Tyr Phe Ala Leu Phe Glu Glu Gln  
785 790 795 800

Gly Ile Gly Val Gln Trp Asp Asn Leu Phe Glu Ser Pro Val Glu Glu  
805 810 815

Asp Gly Phe Asn Leu Thr Thr Ser Val Ser Met Met Leu Phe Asp Thr  
820 825 830

Phe Leu Tyr Gly Val Met Thr Trp Tyr Ile Glu Ala Val Phe Pro Gly  
835 840 845

Gln Tyr Gly Ile Pro Arg Pro Trp Tyr Phe Pro Cys Thr Lys Ser Tyr  
850 855 860

Trp Phe Gly Glu Glu Ser Asp Glu Lys Ser His Pro Gly Ser Asn Gln  
865 870 875 880

Lys Arg Ile Ser Glu Ile Cys Met Glu Glu Glu Pro Thr His Leu Lys  
885 890 895

Leu Gly Val Ser Ile Gln Asn Leu Val Lys Val Tyr Arg Asp Gly Met  
900 905 910

Lys Val Ala Val Asp Gly Leu Ala Leu Asn Phe Tyr Glu Gly Gln Ile  
915 920 925

Thr Ser Phe Leu Gly His Asn Gly Ala Gly Lys Thr Thr Thr Met Ser  
930 935 940

Ile Leu Thr Gly Leu Phe Pro Pro Thr Ser Gly Thr Ala Tyr Ile Leu  
945 950 955 960

Gly Lys Asp Ile Arg Ser Glu Met Ser Thr Ile Arg Gln Asn Leu Gly  
965 970 975

Val Cys Pro Gln His Asn Val Leu Phe Asp Met Leu Thr Val Glu Glu  
980 985 990

His Ile Trp Phe Tyr Ala Arg Leu Lys Gly Leu Ser Glu Lys His Val  
995 1000 1005

Lys Ala Glu Met Glu Gln Met Ala Leu Asp Val Gly Leu Pro Ser  
1010 1015 1020

Ser Lys Leu Lys Ser Lys Thr Ser Gln Leu Ser Gly Gly Met Gln  
1025 1030 1035

Arg Lys Leu Ser Val Ala Leu Ala Phe Val Gly Gly Ser Lys Val  
1040 1045 1050

Val Ile Leu Asp Glu Pro Thr Ala Gly Val Asp Pro Tyr Ser Arg  
1055 1060 1065

Arg Gly	Ile Trp	Glu Leu	Leu	Leu Lys	Tyr Arg	Gln	Gly Arg	Thr
1070			1075			1080		
Ile Ile	Leu Ser	Thr His	His	Met Asp	Glu Ala	Asp	Val Leu	Gly
1085			1090			1095		
Asp Arg	Ile Ala	Ile Ile	Ser	His Gly	Lys Leu	Cys	Cys Val	Gly
1100			1105			1110		
Ser Ser	Leu Phe	Leu Lys	Asn	Gln Leu	Gly Thr	Gly	Tyr Tyr	Leu
1115			1120			1125		
Thr Leu	Val Lys	Lys Asp	Val	Glu Ser	Ser Leu	Ser	Ser Cys	Arg
1130			1135			1140		
Asn Ser	Ser Ser	Thr Val	Ser	Tyr Leu	Lys Lys	Glu	Asp Ser	Val
1145			1150			1155		
Ser Gln	Ser Ser	Ser Asp	Ala	Gly Leu	Gly Ser	Asp	His Glu	Ser
1160			1165			1170		
Asp Thr	Leu Thr	Ile Asp	Val	Ser Ala	Ile Ser	Asn	Leu Ile	Arg
1175			1180			1185		
Lys His	Val Ser	Glu Ala	Arg	Leu Val	Glu Asp	Ile	Gly His	Glu
1190			1195			1200		
Leu Thr	Tyr Val	Leu Pro	Tyr	Glu Ala	Ala Lys	Glu	Gly Ala	Phe
1205			1210			1215		
Val Glu	Leu Phe	His Glu	Ile	Asp Asp	Arg Leu	Ser	Asp Leu	Gly
1220			1225			1230		
Ile Ser	Ser Tyr	Gly Ile	Ser	Glu Thr	Thr Leu	Glu	Glu Ile	Phe
1235			1240			1245		
Leu Lys	Val Ala	Glu Glu	Ser	Gly Val	Asp Ala	Glu	Thr Ser	Asp
1250			1255			1260		
Gly Thr	Leu Pro	Ala Arg	Arg	Asn Arg	Arg Ala	Phe	Gly Asp	Lys
1265			1270			1275		
Gln Ser	Cys Leu	Arg Pro	Phe	Thr Glu	Asp Asp	Ala	Ala Asp	Pro
1280			1285			1290		
Asn Asp	Ser Asp	Ile Asp	Pro	Glu Ser	Arg Glu	Thr	Asp Leu	Leu
1295			1300			1305		
Ser Gly	Met Asp	Gly Lys	Gly	Ser Tyr	Gln Val	Lys	Gly Trp	Lys
1310			1315			1320		
Leu Thr	Gln Gln	Gln Phe	Val	Ala Leu	Leu Trp	Lys	Arg Leu	Leu
1325			1330			1335		
Ile Ala	Arg Arg	Ser Arg	Lys	Gly Phe	Phe Ala	Gln	Ile Val	Leu
1340			1345			1350		
Pro Ala	Val Phe	Val Cys	Ile	Ala Leu	Val Phe	Ser	Leu Ile	Val
1355			1360			1365		
Pro Pro	Phe Gly	Lys Tyr	Pro	Ser Leu	Glu Leu	Gln	Pro Trp	Met
1370			1375			1380		

Tyr	Asn	Glu	Gln	Tyr	Thr	Phe	Val	Ser	Asn	Asp	Ala	Pro	Glu	Asp
1385						1390					1395			
Thr	Gly	Thr	Leu	Glu	Leu	Leu	Asn	Ala	Leu	Thr	Lys	Asp	Pro	Gly
1400						1405					1410			
Phe	Gly	Thr	Arg	Cys	Met	Glu	Gly	Asn	Pro	Ile	Pro	Asp	Thr	Pro
1415						1420					1425			
Cys	Gln	Ala	Gly	Glu	Glu	Glu	Trp	Thr	Thr	Ala	Pro	Val	Pro	Gln
1430						1435					1440			
Thr	Ile	Met	Asp	Leu	Phe	Gln	Asn	Gly	Asn	Trp	Thr	Met	Gln	Asn
1445						1450					1455			
Pro	Ser	Pro	Ala	Cys	Gln	Cys	Ser	Ser	Asp	Lys	Ile	Lys	Lys	Met
1460						1465					1470			
Leu	Pro	Val	Cys	Pro	Pro	Gly	Ala	Gly	Gly	Leu	Pro	Pro	Pro	Gln
1475						1480					1485			
Arg	Lys	Gln	Asn	Thr	Ala	Asp	Ile	Leu	Gln	Asp	Leu	Thr	Gly	Arg
1490						1495					1500			
Asn	Ile	Ser	Asp	Tyr	Leu	Val	Lys	Thr	Tyr	Val	Gln	Ile	Ile	Ala
1505						1510					1515			
Lys	Ser	Leu	Lys	Asn	Lys	Ile	Trp	Val	Asn	Glu	Phe	Arg	Tyr	Gly
1520						1525					1530			
Gly	Phe	Ser	Leu	Gly	Val	Ser	Asn	Thr	Gln	Ala	Leu	Pro	Pro	Ser
1535						1540					1545			
Gln	Glu	Val	Asn	Asp	Ala	Thr	Lys	Gln	Met	Lys	Lys	His	Leu	Lys
1550						1555					1560			
Leu	Ala	Lys	Asp	Ser	Ser	Ala	Asp	Arg	Phe	Leu	Asn	Ser	Leu	Gly
1565						1570					1575			
Arg	Phe	Met	Thr	Gly	Leu	Asp	Thr	Arg	Asn	Asn	Val	Lys	Val	Trp
1580						1585					1590			
Phe	Asn	Asn	Lys	Gly	Trp	His	Ala	Ile	Ser	Ser	Phe	Leu	Asn	Val
1595						1600					1605			
Ile	Asn	Asn	Ala	Ile	Leu	Arg	Ala	Asn	Leu	Gln	Lys	Gly	Glu	Asn
1610						1615					1620			
Pro	Ser	His	Tyr	Gly	Ile	Thr	Ala	Phe	Asn	His	Pro	Leu	Asn	Leu
1625						1630					1635			
Thr	Lys	Gln	Gln	Leu	Ser	Glu	Val	Ala	Pro	Met	Thr	Thr	Ser	Val
1640						1645					1650			
Asp	Val	Leu	Val	Ser	Ile	Cys	Val	Ile	Phe	Ala	Met	Ser	Phe	Val
1655						1660					1665			
Pro	Ala	Ser	Phe	Val	Val	Phe	Leu	Ile	Gln	Glu	Arg	Val	Ser	Lys
1670						1675					1680			
Ala	Lys	His	Leu	Gln	Phe	Ile	Ser	Gly	Val	Lys	Pro	Val	Ile	Tyr
1685						1690					1695			



Trp	Leu	Ser	Asn	Phe	Val	Trp	Asp	Met	Cys	Asn	Tyr	Val	Val	Pro
	1700					1705					1710			
Ala	Thr	Leu	Val	Ile	Ile	Ile	Phe	Ile	Cys	Phe	Gln	Gln	Lys	Ser
	1715					1720					1725			
Tyr	Val	Ser	Ser	Thr	Asn	Leu	Pro	Val	Leu	Ala	Leu	Leu	Leu	Leu
	1730					1735					1740			
Leu	Tyr	Gly	Trp	Ser	Ile	Thr	Pro	Leu	Met	Tyr	Pro	Ala	Ser	Phe
	1745					1750					1755			
Val	Phe	Lys	Ile	Pro	Ser	Thr	Ala	Tyr	Val	Val	Leu	Thr	Ser	Val
	1760					1765					1770			
Asn	Leu	Phe	Ile	Gly	Ile	Asn	Gly	Ser	Val	Ala	Thr	Phe	Val	Leu
	1775					1780					1785			
Glu	Leu	Phe	Thr	Asp	Asn	Lys	Leu	Asn	Asn	Ile	Asn	Asp	Ile	Leu
	1790					1795					1800			
Lys	Ser	Val	Phe	Leu	Ile	Phe	Pro	His	Phe	Cys	Leu	Gly	Arg	Gly
	1805					1810					1815			
Leu	Ile	Asp	Met	Val	Lys	Asn	Gln	Ala	Met	Ala	Asp	Ala	Leu	Glu
	1820					1825					1830			
Arg	Phe	Gly	Glu	Asn	Arg	Phe	Val	Ser	Pro	Leu	Ser	Trp	Asp	Leu
	1835					1840					1845			
Val	Gly	Arg	Asn	Leu	Phe	Ala	Met	Ala	Val	Glu	Gly	Val	Val	Phe
	1850					1855					1860			
Phe	Leu	Ile	Thr	Val	Leu	Ile	Gln	Tyr	Arg	Phe	Phe	Ile	Arg	Pro
	1865					1870					1875			
Arg	Pro	Val	Asn	Ala	Lys	Leu	Ser	Pro	Leu	Asn	Asp	Glu	Asp	Glu
	1880					1885					1890			
Asp	Val	Arg	Arg	Glu	Arg	Gln	Arg	Ile	Leu	Asp	Gly	Gly	Gly	Gln
	1895					1900					1905			
Asn	Asp	Ile	Leu	Glu	Ile	Lys	Glu	Leu	Thr	Lys	Ile	Tyr	Arg	Arg
	1910					1915					1920			
Lys	Arg	Lys	Pro	Ala	Val	Asp	Arg	Ile	Cys	Val	Gly	Ile	Pro	Pro
	1925					1930					1935			
Gly	Glu	Cys	Phe	Gly	Leu	Leu	Gly	Val	Asn	Gly	Ala	Gly	Lys	Ser
	1940					1945					1950			
Ser	Thr	Phe	Lys	Met	Leu	Thr	Gly	Asp	Thr	Thr	Val	Thr	Arg	Gly
	1955					1960					1965			
Asp	Ala	Phe	Leu	Asn	Arg	Asn	Ser	Ile	Leu	Ser	Asn	Ile	His	Glu
	1970					1975					1980			
Val	His	Gln	Asn	Met	Gly	Tyr	Cys	Pro	Gln	Phe	Asp	Ala	Ile	Thr
	1985					1990					1995			
Glu	Leu	Leu	Thr	Gly	Arg	Glu	His	Val	Glu	Phe	Phe	Ala	Leu	Leu
	2000					2005					2010			

Arg Gly Val Pro Glu Lys Glu Val Gly Lys Val Gly Glu Trp Ala  
2015 2020 2025

Ile Arg Lys Leu Gly Leu Val Lys Tyr Gly Glu Lys Tyr Ala Gly  
2030 2035 2040

Asn Tyr Ser Gly Gly Asn Lys Arg Lys Leu Ser Thr Ala Met Ala  
2045 2050 2055

Leu Ile Gly Gly Pro Pro Val Val Phe Leu Asp Glu Pro Thr Thr  
2060 2065 2070

Gly Met Asp Pro Lys Ala Arg Arg Phe Leu Trp Asn Cys Ala Leu  
2075 2080 2085

Ser Val Val Lys Glu Gly Arg Ser Val Val Leu Thr Ser His Ser  
2090 2095 2100

Met Glu Glu Cys Glu Ala Leu Cys Thr Arg Met Ala Ile Met Val  
2105 2110 2115

Asn Gly Arg Phe Arg Cys Leu Gly Ser Val Gln His Leu Lys Asn  
2120 2125 2130

Arg Phe Gly Asp Gly Tyr Thr Ile Val Val Arg Ile Ala Gly Ser  
2135 2140 2145

Asn Pro Asp Leu Lys Pro Val Gln Asp Phe Phe Gly Leu Ala Phe  
2150 2155 2160

Pro Gly Ser Val Pro Lys Glu Lys His Arg Asn Met Leu Gln Tyr  
2165 2170 2175

Gln Leu Pro Ser Ser Leu Ser Ser Leu Ala Arg Ile Phe Ser Ile  
2180 2185 2190

Leu Ser Gln Ser Lys Lys Arg Leu His Ile Glu Asp Tyr Ser Val  
2195 2200 2205

Ser Gln Thr Thr Leu Asp Gln Val Phe Val Asn Phe Ala Lys Asp  
2210 2215 2220

Gln Ser Asp Asp Asp His Leu Lys Asp Leu Ser Leu His Lys Asn  
2225 2230 2235

Gln Thr Val Val Asp Val Ala Val Leu Thr Ser Phe Leu Gln Asp  
2240 2245 2250

Glu Lys Val Lys Glu Ser Tyr Val  
2255 2260

<210> 12  
 <211> 26  
 <212> DNA  
 <213> Homo sapiens

<400> 12  
 ttgccgtcga ctgttttggg tagttt

<210> 13  
 <211> 25

<212> DNA  
<213> Homo sapiens

<400> 13  
gccctgtcga ccggtcttgt tgggtg 25

<210> 14  
<211> 29  
<212> DNA  
<213> Homo sapiens

<400> 14  
tcgcccgttt aggcttgggc gcccggtc 29

<210> 15  
<211> 29  
<212> DNA  
<213> Homo sapiens

<400> 15  
cagaggccgg gaggcttggg cgggaggga 29

<210> 16  
<211> 28  
<212> DNA  
<213> Homo sapiens

<400> 16  
cgtgctttct gctgaggatg cgaactac 28

<210> 17  
<211> 26  
<212> DNA  
<213> Homo sapiens

<400> 17  
cggctcctca cggctttctg ctgagt 26

<210> 18  
<211> 24  
<212> DNA  
<213> Homo sapiens

<400> 18  
gcctcctttc tgctgagtga ctga 24

<210> 19  
<211> 34  
<212> DNA  
<213> Homo sapiens

<400> 19  
ctttgtgtga tagtaaaacta ctgcgctcgg tgca 34

<210> 20  
<211> 20

<212> DNA  
<213> Homo sapiens  
  
<400> 20  
actccaagc tttgtcgtgg

20